



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,903	08/20/2003	Yoshinori Maeno	2003-1118A	4629
513	7590	06/29/2005	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			KANG, JULIANA K	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			2874	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1P/A

Office Action Summary	Application No. 10/643,903	Applicant(s) MAENO, YOSHINORI	
	Examiner Juliana K. Kang	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,9 and 21-24 is/are rejected.
- 7) ☒ Claim(s) 3-7 and 10-20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/20/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features of claims 3-7 and 10-20 (it appears Fig. 10A shows the limitations of claim 1 and 8 but Fig. 10A does not show an additional features such as an additional groove or overhanging portion) are must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-20 are objected to because of the following informalities: claim 1 and 8 recites the limitation "the side surfaces of the optical member." There is insufficient antecedent basis for this limitation in the claims.

Claim 3 recites the limitation "the groove in lines 8, 11, 12 and 14." Because there are at least two grooves, a groove introduced in claim 1 and another groove introduced in claim 3 line 11. The recited limitation "the groove" makes the claim unclear because it is not clear which groove it is referring. This objection applies to claims 5-7.

Claim 8 recites the limitation "an optical member" in lines 4 and 5. It appears that it should be corrected to read "said optical member." An optical member is already recited in line 2.

Appropriate correction is required. Applicant's assistance is requested to correct any other errors that may be noticed in the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2874

4. Claims 1, 2, 8, 9 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg et al (U.S. Patent 6,748,131 B2) and further in view of Kragl (U.S. Patent 6,504,107 B1).

Regarding claims 1, 8, 23 and 24, Steinberg et al disclose the claimed invention including at least two parts of surfaces of the optical member in contact with a groove (2444) on a support substrate (see Fig.24 and 25). However, Steinberg et al do not teach filling an adhesive between the groove and an optical member (2441). Kragl teach using a highly transparent adhesive between two optical components to improve the optical coupling. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an adhesive of Kragl in Steinberg et al to improve the coupling efficiency between the fibers and the lenses and to reinforce securing.

Regarding claims 2 and 9, Steinberg et al show the slanting surfaces of the optical member (see Fig. 24, 2460) however, the groove (2444) is not a trapezoidal section shape. Since Steinberg et al teaches inserting the slanting surfaces of the optical member (2460, trapezoidal shape) into the groove (2444) for alignment purpose. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a trapezoidal section shape for the groove in Steinberg et al for more precise alignment between the optical element having trapezoidal shaped alignment protrusion and the substrate.

Art Unit: 2874

Regarding claims 21 and 22, Steinberg et al teach using silicon substrate for the optical member and the support substrate (see column 9 lines 49-50 and column 4 line 54).

Allowable Subject Matter

5. Claims 3-7 and 10-20 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The closet prior art made of record, Steinberg et al, does not appear to teach the combination of having at least two part of *the* side surfaces of an optical member and parts of the side surfaces of at least two of the overhanging portions having in contact with the same groove as set forth in the claimed combination of claims 3 and 10.

Conclusion

6. The prior art documents submitted by applicant have been considered and made of record (note the attached copy of form PTO-1449).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsunoda et al (U.S. Patent 4,426,132) teach aligning lens elements. Cheng et al (U.S. Patent 6,739,760 B2) teach aligning lens array within an optical module.

Art Unit: 2874

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (571) 272-2348. The examiner can normally be reached on Mon. & Thur. 10:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JULIANA KANG
PRIMARY EXAMINER